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Original scientific paper
UDK: 371.213.1
DOI: 10.17810/2015.02

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SATISFACTION OF TEACHERS' NEED FOR AUTONOMY AND THEIR STRATEGIES OF CLASSROOM DISCIPLINE²

Abstract: This paper points to the necessity to conduct researches of contextual conditions of teachers' behavior in classroom, using the framework of the *self-determination theory*, according to which styles of teachers' behavior toward students is correlated with their satisfaction of psychological need for autonomy in school. We analyzed different hypothetical models of correlation between teachers' perception of pressure at work, which undermines their autonomy, and intrinsic work motivation with controlling styles of teachers' behavior. Therefore, the aim of this research was to determine the existence of correlation between satisfying the teachers' need for autonomy at school and strategies of classroom discipline used by teachers. Two instruments were constructed and validated for the purpose of the research. The research included 444 primary school teachers in the primary schools in Serbia. Results of the research show the positive, relatively low correlation between one of two component of teachers' autonomy at work place (the teachers' perception that school climate supports the active involvement of all collective members in decision-making and their sense that other members of the collective respect their opinions and feelings – component of autonomy type) with one of three components of teachers' strategies of classroom discipline (teachers are using the techniques of negotiation the solutions of conflict situations with students, preventing discipline problems through the efforts to get students interested in the subject matter and encouraging positive students' behavior – component of autonomy type). It is not empirically acknowledged assumption about the existence of negative correlation between teacher's perception of the control and pressure in school with teachers' autonomy-supportive behaviors in the process of establishing and maintaining classroom discipline.

Key words: teacher's autonomy, job pressure, classroom discipline, styles of teachers' behavior, self-determination theory.

Introduction

The behavior of teachers in classroom may be due to the real environment in which teachers do their job. It should be born in mind that teaching practice is also determined by both narrow and broad social context, values that are promoted in school and society, relations

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² Note. The paper is a result of the Project (number 179020) entitled *Concepts and strategies of providing quality basic education and pedagogical work*. of Teacher education faculty, University of Belgrade (2011-2015), whose realization is funded by the Ministry of Education, Science and Technological Development of the Republic of Serbia.

between the colleagues and the possibility for teachers to be able to influence the decisions on important matters of personal act at work. Today, it is being stated more often that "the school system can pressure teachers which simultaneously affects the reduction of teacher's and student's motivation, as well as the quality of their interactions" (Deric & Devic, Lalic-Vucetic, 2009: 360). Conceptual assumption of *self-determination theory* and the empirical results of the corresponding researches are increasingly directing researches of pedagogues and psychologists to examine the contextual determination of teachers' behavior in the classroom. It is pointed out that the behavior style of teachers in class is associated with the satisfaction of basic teacher's needs (autonomy, relatedness and competence) at school. The autonomy of teachers in the school context, as well as the autonomy of the students in the classroom environment, is seen as a necessity of people to act according to their own will, choice and integrity and that their behaviors and the ultimate results of those behaviors (rather than under the influence or control of external pressure) are self-determined and freely chosen (Deci & Ryan, 2000; Johnston & Finney, 2010).

Controlling contextual conditions (related to the character of the work and the context in which the job is performed), and controlling intrapersonal conditions (related to the climate in the collective and interpersonal style of school administration) undermine the sense of autonomous action of teachers in school and intrinsic motivation of teachers for teaching. It is believed that it is more likely that in such circumstances the teacher will use the controlling behavioral style towards students (Gagné & Deci, 2005; Dordic & Tubic, 2010, Tadic, 2015). Teachers more often choose disciplinary techniques with a higher degree of teacher control over the students, based on power (such as directive statements, threats of consequences, modeling, reinforcement and physical intervention), then those that support students' autonomy (Psunder, 2005). They often use disciplinary activity based on the control and restriction of students, although they can be communicated without undermining quality and creativity in children's performance (Koestner *et al.*, 1984). The fact that they are also exposed to external pressures is one of the main reasons why teachers use external control, instead of procedures that support students' sense of autonomy in the classroom (Bodroza, Deric & Lalic-Vucetic, 2012; Niemiec & Ryan, 2009).

Review of relevant research that will be presented in the next section is aimed at more comprehensive understanding of major correlates of the controlling teachers' behaviors in the classroom, especially when we talk about the phenomenon of classroom discipline³. This problem is examined in several studies from the standpoint of the perceived locus of control of behavior of students. Below we will show the results of studies that have, more or less explicitly, examined the correlation between the job pressure and their activities for establishing and maintaining classroom discipline (to *manage classroom*).

In the study of Luc Pelletier, Chantal Séguin-Lévesque and Louise Legault it was presumed that it is more likely that teachers who perceive *pressure at work* feel less autonomous in regard to their teaching work, which results that their relationships with students become more controlling. "It is possible that these conditions may directly affect teachers' behaviors or that they may undermine teachers' motivation toward their own work that, in turn may

³ We use the term *classroom discipline* viewing it as a pedagogical phenomenon reintegrated into the whole educational process, which includes all proactive and preventive activities aimed at creating the conditions for a undisturbed, successful learning in classroom (Tadic, 2015). In contemporary literature often used term *classroom management* corresponds in substance thus defined term *classroom discipline*.

lead them to be more controlling with their students“ (Pelletier, Séguin-Lévesque & Legault, 2002: 187). In this regard, the study measured four theoretical constructs and examined different models of relations across these potential determinants. The study examined: 1) teachers' perceptions of pressure experienced at work, 2) teachers' perception of students' intrinsic or extrinsic motivation and autonomous regulation, 3) teachers' own intrinsic or extrinsic motivation and autonomous regulation toward work and 4) teacher's disposition to control students or to support their autonomy (Pelletier et al., 2002). Instrument used to measure *pressure experienced at work* was constructed especially for this study (*The Constraints at Work Scale*) which consists of three subscales (each with three items) and each of them measure teachers' perception of: a) pressure associated with conforming to colleagues' teaching (e.g. “You have to conform to your colleagues teaching methods“), b) pressure coming from the school administration regarding discipline in class (e.g. “You are evaluated in function of the degree of ‘control’ you have on your class.“) and c) pressure associated with the importance of conforming to the school curriculum and performing up to standards (e.g. “It is important to complete the entire school curriculum.“). For measuring *teachers' autonomy-support versus control orientation* (the way teacher treats his students), it is used the instrument *Problems in Schools Questionnaire* (published in: Deci et al., 1981, according to: Pelletier et al., 2002). No direct correlation was determined between the pressure at work and behavior of teachers toward students, but their correlation is mediated by the motivation of teachers toward their work. This paper does not include information about the strength of the correlation. So, is obtained that the behavior of teachers supporting the autonomy of students in class is directly related to their motivation toward their work of autonomous type (Pelletier et al., 2002).

Ian Taylor and associates have realized several related studies out of which we have analyzed one particularly relevant for the problem that we research. This study (Taylor, Ntoumanis & Standage, 2008) is considered important for two reasons: a) research problem is related to the testing of correlation between the pressure that teachers feel at school and their behaviors toward students during the class (applying autonomy-supportive actions) and b) descriptions of three measured teacher motivational teaching strategies in the classroom⁴ (*structure*⁵, *interpersonal involvement*⁶ and *autonomy support*⁷) in the explanation of the theoretical framework of the research significantly correspond to the classification of the main three strategies of classroom discipline that we used – procedural, interpersonal and

⁴ The authors note that these three basic types of teacher motivational teaching strategies that they use in the classes are earlier defined and tested (Connell & Wellborn, 1991; according to: Taylor et al., 2008).

⁵ Structure of the learning environment is defined by the amount and quality of information that the teacher provides the students about the consequences of their behavior, as well as in terms of clarifying ways with which students can achieve the desired outcomes (which includes the provision of instrumental support, setting and clarifying the expectations and guidance by the teacher). This description corresponds to the understanding of *procedural strategy* of autonomous type in the field of classroom discipline (Tadić, 2015).

⁶ Refers to the teachers' showing of interest and providing emotional support to students. As examples are given: “building an understanding of students and maintaining close physical proximity” (Connell & Wellborn, 1991; according to: Taylor et al., 2008: 76). This description corresponds to the understanding of *interpersonal strategy* of classroom discipline of autonomous type (Tadić, 2015).

⁷ Refers to a variety of teaching strategies that enhance students' feelings of volition and promote an internal locus of causality, e.g., “providing students with a meaningful rationale and giving them responsibility” (Reeve, Nix, & Hamm, 2003; according to: Taylor et al., 2008: 76). This description corresponds to the understanding of *didactical strategy* of autonomous type in the field of classroom discipline (Tadić, 2015).

didactical strategy (defined in: Tadić, 2015). Referring to the conclusions of study presented earlier (Pelletier et al., 2002) that the pressure at work is directly correlated with teachers' motivation toward their own work, it is assumed here that such correlation is not direct. The authors start from the point of view of the theory of self-determination that social context influences motivational regulations via the satisfaction of innate psychological needs (autonomy, competence and relatedness). Therefore, as an indirect variable the *satisfaction of the three psychological needs* was tested (Taylor et al., 2008). So, the following hypothetical model was tested: teachers' *perceived job pressure*, teachers' *perceptions of student self-determination* and teachers' *autonomous causality orientation* (each one individually) are directly correlated with teachers' *perceptions of psychological need satisfaction*; those perceptions are directly correlated with *teacher self-determined motivation*; which is directly correlated with *use of the three motivational strategies*.

Perceived Job Pressure was measured using the instrument in the form of seven point Likert scale with 10 items constructed especially for this research to measure the job pressure regarding deadlines, teaching evaluation and students' achievements, as well as the pressure from the school administration regarding use of certain teaching methods. *The psychological need satisfaction* was measured using the instrument *Basic Need Satisfaction at Work Scale* (BNSAW, published in: Deci et al., 2001; according to: Taylor et al., 2008). The instrument consists of three subscales. *Autonomy* was measured with 7 items, *competence* with 6 items, and *relatedness* with 8 items. *Use of the three motivational strategies* was measured using the revised version of the instrument *Teacher as Social Context Questionnaire* (TASCQ; published in: Wellborn et al., 1988; according to: Taylor et al., 2008) which consists of 10 items. On seven point Likert scale, teachers responded on statements about *use of the three motivational strategies – structure* (3 items), *interpersonal involvement* (4 items) and *autonomy support* (3 items). Participants were physical education teachers.

Among the many data about the correlation between these variables, we will emphasize the most relevant for our study. The authors' assumption that the pressure at work correlated with teachers' sense of satisfaction of basic needs was confirmed ($r = -0,44$). There was indirect and direct correlation between teachers' perceptions of satisfaction of basic needs with the use of some motivational strategies: indirect correlation through the teacher self-determined motivation⁸ and direct correlation with the procedural motivational strategy ($r = 0,22$) and interpersonal motivational strategy ($r = 0,23$). The authors concluded: "The more teachers' needs were satisfied and the more self-determined they reported to be, the more they tried to gain an understanding of their students and provide them with instrumental help and support" (Taylor et al., 2008: 88). In addition, authors emphasized indirect negative influence of teachers' perception of job pressure on their self-determined motivation and, consequently, it is less likely that they will use motivational strategies of autonomous type. Teachers' psychological needs satisfaction is directly associated with their motivation, conditioning their effort to provide meaningful rationale, help and support to students, as well as the effort to understand their students, their needs, perspectives and values. The authors interpreted controlling teachers' behaviors towards students as a lack of teachers'

⁸ Positively correlated with teachers' psychological needs satisfaction ($r = 0,39$) and with all of three motivational strategies: understanding their students (*interpersonal involvement*, $r = 0,35$), procedural, instrumental support (*structure*, $r = 0,49$) and providing meaningful rationale (*autonomy support*, $r = 0,34$).

motivation to invest effort which is required for the use of autonomy-supportive behavior toward students.

Luc Pelletier and Elizabeth Sharp (Pelletier & Sharp, 2009) published review of results from several relevant studies which measured how much the perceived job pressure affects the behavioral style of teacher toward students (autonomy-supportive teachers / controlling teachers). The authors suggest that one of the major reasons why teachers behave in a controlling manner toward students is that they feel the pressure from school administration. Teachers' perceptions of pressure lead to reduction of their motivation for teaching which results in: increasing the controlling teachers' behaviors in the classroom, reduction of students' motivation for work and their low educational achievements. "The behaviors of controlling administrations are similar to those of controlling teachers" (Pelletier & Sharp, 2009: 176). The school administration may emphasize responsibility of teachers for their students' achievements and impose to teachers: high requirements with deadlines for achieving them, teaching evaluation, compliance with certain teaching methods and the like.

Methodology

In many studies so far the assumption was confirmed that teachers who perceive job pressure, pass that pressure on their students, which floats in controlling styles of teachers' behavior. Based on the above, we thought it was significant to examine correlation between teachers' strategies for establishing and maintaining classroom discipline with their perception of their own autonomy in school, using the framework of the self-determination theory for the theoretical-methodological basis of scientific research.

In this research, the term *teachers' autonomy in school* refers to their sense that they can autonomously make decisions in the school, that they are the initiators of their own activities in school, that school administration provides them with opportunities for making choice, that their opinions, suggestions and vision of certain problems in school are respected and that their behaviors at school are self-motivated, instead of being under the influence or control of external pressure (obligation, command, punishment, reward, salary, etc.). Under the *teachers' strategies of classroom discipline*, in this study we understand the basic actions (ways, procedures, steps) that teachers use with the aim of establishing and maintaining discipline during the class. Thus, the strategy of classroom discipline indicates the way in which teachers apply specific knowledge, skills, abilities, organizational mechanisms of the disciplining, in order to successfully establish and maintain classroom discipline. Three key strategies for establishing and maintaining classroom discipline (individually or combined) are named as: *procedural*, *interpersonal* and *didactical strategy* (s. Tadić, 2015)⁹. All three strategies of classroom discipline are observed on the continuum that ranges between control of students' behavior and support of their autonomy in classroom.

⁹ *Procedural strategy* refers to elaboration of various procedures for establishing and maintaining classroom discipline: rules of behavior and a system of positive and negative reinforcement. *Interpersonal strategy* emphasizes the quality of interpersonal relationships whose developing in the classroom has a positive effect on establishing and maintaining classroom discipline. *Didactical strategy* refers to understanding that the process of establishing and maintaining classroom discipline is directly dependent on the characteristics of the curriculum, as well as on the organization of teaching process.

The goal of this research is to gain insight into the correlation between satisfying the teachers' need for autonomy at school and strategies of classroom discipline used by teachers. The main tasks were to examine: 1) the teachers' opinions about satisfaction of their own need for autonomy in school, 2) the correlation between teachers' strategies of classroom discipline with their perceptions of need for autonomy satisfaction in school and 3) the correlation between socio-demographic and professional characteristics of teachers with the satisfaction of the teachers' need for autonomy. We started from the assumption that the strategies of classroom discipline which teachers use are correlated and that they reflect their own sense of autonomy at school, i. e., classroom discipline strategies of controlling type is used by teachers who feel low degree of autonomy in their own school. In this research¹⁰ we used instruments which consist of the survey type questions (for testing socio-demographic and professional characteristics of teachers) and scales. We applied two scales: scale TNAS¹¹ and scale TSCD¹². Data on instrument validation and on content of components of variable TSCD were published in the book *Teachers' Models and Strategies of Classroom Discipline* (Tadić, 2015)¹³. Items in self-report scale TNAS (Appendix 1) are indicators of *teachers' autonomy in school*¹⁴. Some of the 18 items were formulated on the basis of theoretical assumptions, partly empirically acknowledged, about the basic factors of teachers' perception of being controlled and under pressure in school (No. 1, 3, 5, 7, 9, 11, 12, 14, 15, 17 and 18). The remaining items reflect the teachers' experience of autonomous acting in school. The scale measures the

¹⁰ The results that we are presenting were obtained in the context of a broader research project whose aim was to examine: 1) the characteristics of teachers' beliefs about education and classroom discipline, 2) characteristics of actions for establishing and maintaining classroom discipline, and 3) correlates of these variables. The research was conducted in May 2013 (published in: Tadić, 2015).

¹¹ Abbreviation for instrument: *The Teachers' Need for Autonomy Satisfaction*.

¹² Abbreviation for instrument: *The Teachers' Strategies of Classroom Discipline*.

¹³ Based on results of factorial analysis we identify three components: 1) *the strategy of authoritarian relations*, 2) *the strategy of punishment, rigorous rules and directions* (classroom discipline strategies of controlling type) and 3) *the strategy of conversations, interest and positive reinforcement* (classroom discipline strategy of autonomous type). The strategy of autonomous type is independent of *strategy of authoritarian relations*, and moderately strong correlated with *strategy of punishment, rigorous rules and directions* (Scheme 1). Two strategies of controlling type are strongly correlating mutually. All three dimensions of classroom discipline strategies were slightly more expressed than the theoretical average, especially the strategy of autonomous type (Tadić, 2015).

¹⁴ The starting point for the construction of the scale TNAS was *The Basic Needs in General Satisfaction Scale* (BNSG-S). The scales of satisfaction of basic needs are similar scales, some of them measure the general level of satisfaction of basic needs (theoretical basis is self-determination theory, basic needs are: autonomy, competence and relatedness) in someone's life, while others are aimed at measuring the degree of the basic needs satisfaction in certain areas. The original scale (Johnston & Finney, 2010: 294) has 21 items: 7 items are indicators of satisfaction of basic need for autonomy, 8 items are indicators of satisfaction of basic need for relatedness and 6 items are indicators of satisfaction of basic need for competence. The general scale was used, with some adaptations, in numerous studies in the field of sports, psychology, psychotherapy, gender studies and other (according to: Johnston & Finney, 2010). When we talk about researches in the field of education, adapted versions of the general scale, which measures the satisfaction of basic needs have been used in researches in the field of physical education (Ntoumanis, 2005) and in the field of students' engagement in prosocial activities (Gagné, 2003); in both cases the students were asked to answer. Adapted versions of scale (*The Basic Need Satisfaction at Work Scale: BNSW-S*) were often used in researches realized in jobs in other fields (available at: <http://www.selfdeterminationtheory.org/basic-psychological-needs-scale>), but in researches in the field of basic needs satisfaction of the teachers in the schools, we found that it was used only in research that we already described in review of relevant researches (Taylor et al., 2008). In our version of the instrument we have adapted items from the general scale specified as indicators of satisfaction of basic need for autonomy, adapting them to the school context.

expression of teachers' sense of autonomy in the school regarding: *participation in decision-making* (e.g., "I do not have many opportunities in school to decide autonomously what to do and in which way"), *pressure from school administration* (e.g., "Members of the school administration allocate responsibilities to many employees in the collective making everyone feel that they are actively involved into managing school."), *pressure from colleagues* (e.g., "Colleagues are trying to understand how am I feeling about the situations I face every day at school."), *pressure from parents* (e.g., "Parents of students more often pressure me about what students should learn, which grade they deserve or how I should treat them."), *teaching methods* (e.g., "The official teaching curriculum are limiting my creativity and flexibility about work in classroom.") and *assessment of student achievement* (e.g., "Sometimes I feel pressure to align my assessment criteria according to the requirements of the collective.").

The sample was composed of primary school subject matter teachers in Serbia (N=444). Regarding gender, the sample has the following structure: 337 (75,9%) were female and 107 (24,1%) were male teachers. The average school teaching experience was 16 years. For further analysis, the respondents were divided into four groups depending on the length of their working experience: less than 10 years – 159 teachers (35,8%), from 11 to 20 years – 145 teachers (32,7%), from 21 to 30 years – 82 teachers (18,4%) and more than 30 years – 58 teachers (13,1%). The structure of the sample according to the subjects that teachers teach in school is as follows: mathematical-technical-natural sciences – 243 teachers (54.7%) and social sciences and humanities – 201 teachers (45.3%) In the study we used quantitative techniques of data collection. We applied parametric and nonparametric statistical techniques. Besides descriptive data analyzing by frequencies, percentages, measures of central tendency and dispersion, we applied correlation, t-test, analysis of variance and chi-square test.

Results of research and discussion

We presumed that *the teachers' need for autonomy satisfaction* can be measured using scale TNAS. A Principal Component method of extraction with Promax rotated factors was performed on the data. Regarding the number of factors, the criteria of Eigenvalue higher than one (Table 1), suggested three factors. The same number of factors suggested Scree test (Figure 1). However, it was decided that to retain the two-factor model is more interpretable solution. The Kaiser-Meyer-Olkin measure of sampling adequacy (0,865) confirmed that the data and sample size were adequate for factor analysis.

Table 1: The squared factors and percent of variance for the two-factor solution for components of Teachers' need for autonomy satisfaction

Components	Initial Eigenvalues			Rotation solution
	Total	% of Variance	Cumulative % of Variance	Total
Control and pressure	4,762	29,765	29,765	4,293
Participation and freedom of thought	1,661	10,379	40,144	3,589

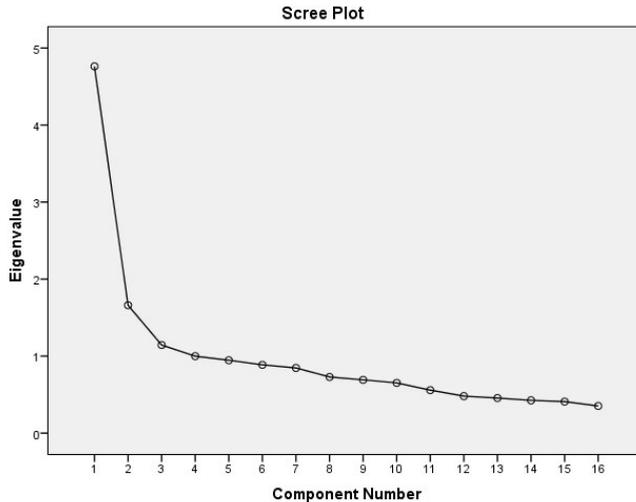


Figure 1: Scree plot of the factorial validation of the scale TNAS

The first construct (Table 2) saturate items that suggest that teachers in the school feel pressure from colleagues, principals, parents and curriculum. The teacher has feeling that he has to do what others expect of him, that he is not independent, that has no opportunities for making choice, nor the possibility of being himself. We named this component **Control and pressure**. The second construct (Table 2) saturate items related to the school climate which encourages teachers' participation in decision-making, active involvement of all members of the collective, their freedom of speech and thought. In such atmosphere the teacher has a perception that other collective members accept and respect his opinions and feelings. We named this component **Participation and freedom of thought**.

The correlation between the extracted components was moderately strong and negative ($r = -0,487$), which suggests that schools, with more expressed teachers' perception of job pressure on employees, are often characterized by lower participation of all members of the collective in decision-making and reduced freedom of expression of their own opinions.

Table 2: Factor Structure of the scale TNAS

Items	Factorial saturation	
	1. ¹⁵	2. ¹⁶
07. At work I often have to do things the way I am told.	0,851	
05. I often feel pressure by colleagues (principal and / or collective) to change main decisions or way of working.	0,697	
09. I do not have many opportunities in school to decide autonomously what to do and in which way.	0,611	
01. Sometimes I feel pressure to align my assessment criteria according to the requirements of the collective.	0,600	

¹⁵ Control and pressure

¹⁶ Participation and freedom of thought

15. Parents of students more often pressure me about what students should learn, which grade they deserve or how I should treat them.	0,587	
04. At school I feel freedom to decide independently how I do my job.	-0,557	
10. In everyday situations at school I can be who I really am.	-0,501	
08. The opinions and wishes of students' parents I do not see as pressure on the personal style of teaching.	-0,424	
11. The official teaching curriculum are limiting my creativity and flexibility about work in classroom.	0,419	
14. When I get an assignment from my superiors at work, I usually have to do it exactly as I am told.	0,374	
16. The school administration encourages employees' participation in important decision-making that affect the teachers' work.		0,868
02. Members of the school administration allocate responsibilities to many employees in the collective making everyone feel that they are actively involved into managing school.		0,771
06. Colleagues are trying to understand how am I feeling about the situations I face every day at school.		0,650
18. Members of the school administration often decide on behalf of the collective what should they do in school and in which way, without consultation with other employees.		-0,623
13. At collective meetings I feel completely free to express my ideas and opinions.		0,527
17. Tasks and requirements of school administration I perceive as pressure on personal work style.	0,343	-0,451

The extracted components and their contents allow the comparison of our research results with presented results of relevant studies. In the first place, with the results of study that examined the correlation between use of the three motivational strategies with teachers' perceived job pressure and teachers' autonomous causality orientation (Taylor et al., 2008).

Descriptive information about the components of teachers' need for autonomy satisfaction are shown in Table 3.

Table 3: Data of descriptive statistics for components of Teachers' need for autonomy satisfaction

Components	Min	Max	AM	SD	Skewness	Kurtosis
Control and pressure	-1,657	3,510	0	1	6,678	2,000
Participation and freedom of thought	-3,466	1,775	0	1	-5,818	1,594

Distribution of component named *Participation and freedom of thought* is curved to the left (larger number of respondents achieve high scores), while component named *Control and pressure* is curved to the right (larger number of respondents achieve low scores). Normalization of distribution was performed, after which the normalized data were used in further analyzes.

In order to determine whether the average values of the results for components of Teachers' need for autonomy satisfaction is higher or lower than the theoretical arithmetic mean ($AM_{\text{theor}} = 3$), we used the one sample t-test. The results show that the *Control and pressure* is statistically significantly lower than the theoretical average, while *Participation and freedom of thought* is statistically significantly higher than theoretical arithmetic mean (Table 4).

Table 4: The significance of the score deviation for the components of Teachers' need for autonomy satisfaction from theoretical arithmetic mean

Components	AM	AM _{theor}	t (443)	p
Control and pressure	2,23	3	-25,805	0,001
Participation and freedom of thought	3,79	3	22,454	0,001

When it comes to component *Control and pressure* 88,7% of respondents achieved a score that is below theoretical arithmetic mean, while the remaining 11,3% achieved a score that is above this value. At component *Participation and freedom of thought* the situation was reversed: 16,2% of respondents achieved a score below, while 83,8% score above the theoretical average. These results suggest that the majority of teachers perceived that there is no control and pressure in their schools and that there is an atmosphere that supports the involvement of all members of the collective in activities related to decision-making and the free expression of opinions.

We believe that for the explanation of this data (which we did not expect) would be useful to consider the difference that stands out Nenad Havelka between certain components of the concept of teacher's autonomy in the school. He stated that the teacher's autonomy may be related to his position and roles in the school, whereby in many aspects and components (particularly the most important) of the teacher's work they leave no autonomy to him, but these are determined outside the school by "wide spread system of decisions on which he had no influence" (Havelka, 1996: 173). On the other hand, he believes that, for many teachers, the autonomy that they have in their work (*didactical autonomy*) is major and very important and that it is the only good side of their calls. We suppose that a very high percentage of teachers who achieved score on the component *Participation and freedom of thought* that is above the theoretical average could be explained by the assumption that teachers primarily had in mind this type of personal autonomy while answering. Especially important for our research problem is Havelka's explanation of the way this kind of didactical autonomy is transformed into *didactical conformism* (we do well if we have in mind the conditions in which we are working), whose result is "*didactical uniformity* - the predominance of routines and uniformity in the work of the majority of teachers" (Havelka, 1996: 177), which does not allow the development of the *action autonomy* of students. This interpretation is in accordance with the data we obtained in terms of the significance of deviations of scores on the components of classroom discipline strategies (Tadić, 2015), where over 88% of respondents in all three scales achieved scores that were above the theoretical average value. Of course, these results can be interpreted from the point of formulation of items from the instrument, and lead to a doubt about the sincerity of the respondents in completing the instruments.

Otherwise, the data showing that a significant percentage of teachers in the component *Participation and freedom of thought* achieve a score that is above the theoretical average could be interpreted in two ways: either that our schools really have an atmosphere that supports the involvement of teachers in activities related to decision-making and freedom of expression, or that teachers have lowered their assessment criteria of school as a work environment that satisfies their need for autonomy.

In the relevant researches that have examined the correlation between the socio-contextual conditions and interpersonal behavior style in the school environment, the obtained data show that controlling behavior of teachers in classes is not directly correlated with their perception of job pressure in school. The conclusion based on the responses of teachers shows that the correlation is indirect, through *teachers' motivation toward work* (Pelletier et al., 2002). These conclusions were confirmed also when students reported on the behavior of teachers (Roth et al., 2007). It turned out that *teachers' perception of basic needs satisfaction* is directly (positively) related with the use of procedural motivational strategies ($r = 0,22$) and interpersonal motivational strategies ($r = 0,23$), as well as indirectly, through the *autonomous work motivation of teachers*, with all three motivational strategies (Taylor et al., 2008)¹⁷.

We expected that in a specific field of teaching, such is establishing and maintaining classroom discipline, the existence of a correlation will also be confirmed between teachers' perception of satisfaction of need for autonomy in school and actions that they use to maintain discipline in the classes.

Table 5: Correlation between dimension of Teachers' strategies of classroom discipline and Teachers' need for autonomy satisfaction

Teachers' Autonomy:	Control and pressure	Participation and freedom of thought
Strategies of discipline:		
Strategy of conversations, interest and positive reinforcement	-0,017	0,218*
Strategy of authoritarian relations	-0,045	0,084
Strategy of punishment, rigorous rules and directions	0,057	0,063

* Indicate statistical significance $p < 0,01$

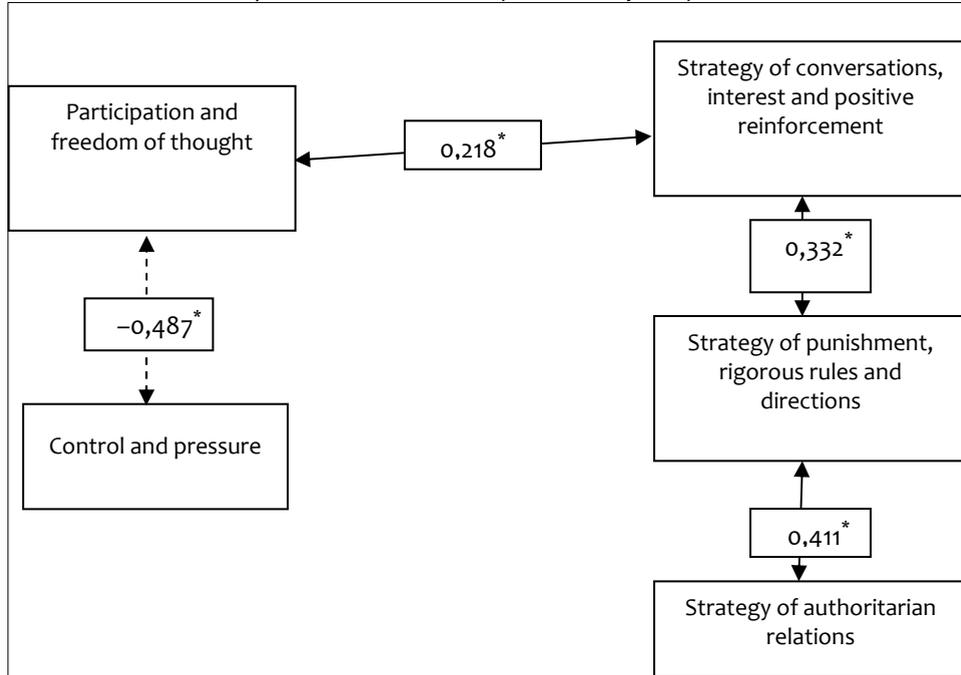
Pearson's correlation coefficient suggests that only the use of *the strategy of conversations, interest and positive reinforcement* (strategy of autonomous type) is correlated with the teachers' perceptions of autonomy in school, specifically only with a component *Participation and freedom of thought* (Table 5). This correlation is relatively low ($r = 0,218$). It could be claimed that the more a teacher has freedom to express his/her own opinions and participates in decision-making at school, the more he or she uses conversation, positive reinforcement and respects the interests of the students in order to maintain discipline. The other two components of classroom discipline strategies (both of controlling type) are not correlated with the components of teacher's autonomy in school. These results correspond to the presented results of earlier study of correlation between teacher's perception of satisfaction of basic needs (all three: autonomy, competence, relatedness) and motivational strategies applied by physical education teachers (Taylor et al., 2008).

We have previously presented the results of the correlation between components of teachers' autonomy in schools with components of classroom discipline strategies. Below we will show schematically the correlation between all these components (Scheme 1), which will

¹⁷ Correlation between *work motivation of teachers* and use of *motivational strategies* are slightly stronger: $r = 0,34$ / $r = 0,35$ / $r = 0,49$ (for procedural motivational strategy).

be used for final interpretation of the results obtained in terms of the correlation between these variables.

Scheme 1: Significant correlation between components of Teachers' strategies of classroom discipline and Teachers' need for autonomy satisfaction



* Indicate statistical significance $p < 0,01$

As we expected, a positive correlation was determined between component of teachers' autonomy in school (*participation and freedom of thought* – teacher reports that school climate encourages the active involvement of all members of collectives in decision-making and that have feeling that other collective members respect his opinions and feelings) with the only component of classroom discipline strategies of autonomous type (*strategy of conversations, interest and positive reinforcement* – a teacher is speaking with students and negotiates the solutions of conflict situations with students, preventing discipline problems through the efforts to get students interested in the subject matter and encouraging positive students' behavior), but their correlation is relatively low.

On the other hand, the assumption about the existence of direct correlation between teacher's perception of the *control and pressure* in school with their use of actions of the controlling type in an effort to establish and maintain classroom discipline is not empirically acknowledged. This correlations are not significant, indicating that the ways in which teachers are establishing and maintaining classroom discipline are probably more dependent on other variables (personality of the teacher, their beliefs, locus of causality, feelings of competence and success, etc.), rather than teachers' perception of the school climate.

It is possible that there is a correlation between sense of control and pressure at school with the tested variables of controlling type, but indirectly, through the mediating factors. We could not determine this with our research. Even if *an autonomous work motivation of teachers* was used as a variable, we don't think we could get a high correlation with the behavior of teachers, considering the obtained models of correlation and strength of correlation between the variables identified in earlier researches (Pelletier *et al.*, 2002; Roth *et al.*, 2007; Taylor *et al.*, 2008).

The last research task was to test the correlation between the satisfaction of the teachers' need for autonomy in schools with the control variables – socio-demographic and professional characteristics of teachers (gender, subjects that teachers teach in school, school teaching experience). Tests regarding correlation between the autonomy of teachers in schools with control variables have not confirmed the existence of statistically significant differences, and the results of these analyzes will not be presented.

Conclusion

The assumption about the existence of correlation between the classroom discipline strategies with teachers' perception of satisfaction of their need for autonomy in school was only partially empirically confirmed. As expected, the positive correlation was confirmed between one component of teachers' autonomy in school, *participation and freedom of thought*, with the only component of classroom discipline strategies of autonomous type. This correlation is relatively low. On the other hand, the assumption about the direct correlation between teachers' perception of *control and pressure* at school with neither separate component of classroom discipline strategies of controlling type.

Methodological solutions in our research, regarding tested variables, used instruments, can be used in further researches in this area which would allow the empirical verification of the results and come up with new knowledge about the phenomena of teachers' needs and teaching strategies in dealing with students in the classroom. It would be significant, in this sense, to do research using also the other appropriate research techniques, class observation and interviewing. We believe that in this way possible disadvantages of the use of scales for testing the attitudes of teachers could be overcome, especially those related to the provision of socially desirable responses or responding on the phenomenon of pressure on teachers influenced by the perception of such eventual pressure. The conducted research misses the testing of teachers' work motivation and its correlation with the tested variables. However, based on the results of previous researches, it can be assumed that their correlations would be significant (but not too strong). Such result would put emphasis on the need for directing the activities of educational policies creators and members of the school administration on autonomy-supportive type of motivation of teachers for work, in order to achieve positive effects also on the orientation of teachers to the autonomy-supportive actions toward students in class.

As important topic for further researches, as well as in the realization of programs of professional teacher education, we see opportunities and strategies for recognizing and changing the controlling contextual and intrapersonal factors of style of behavior by in-service teachers and students of teacher education faculties. We believe that the movement of school

culture toward supporting teachers' autonomy can significantly increase the teachers' identification with the introduction of changes, innovation and new reform programs in teaching, contributing to their personal and professional development. In this way, significant conditions could be created for substantial support to students' autonomy in the classroom.

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Appendix 1: Scale TNAS¹⁸

Instruction: Dear teacher, in front of you is a series of statements related to your job and relationships in the collective. Please read carefully each statement, consider each of them and express extent to which you agree with each statement. There are no "correct" and "incorrect" responses, all answers are good if they are sincere. Your agreement or disagreement with the statement, you'll present by rounding the number 1, 2, 3, 4 or 5, and the numbers have the following meanings: 1 – Disagree strongly; 2 – Generally disagree; 3 – I am undecided; 4 – Generally agree; 5 – Agree strongly.

1.	Sometimes I feel pressure to align my assessment criteria according to the requirements of the collective.
2.	Members of the school administration allocate responsibilities to many employees in the collective making everyone feel that they are actively involved into managing school.
3.	I have feeling that in our school we deal more with deadlines, preparing for the evaluation of teaching and student' assessment, than with the essence of education.
4.	At school I feel freedom to decide independently how I do my job.
5.	I often feel pressure by colleagues (principal and / or collective) to change mein decisions or way of working.
6.	Colleagues are trying to understand how am I feeling about the situations I face every day at school.
7.	At work I often have to do things the way I am told.
8.	The opinions and wishes of students' parents I do not see as pressure on the personal style of teaching.
9.	I do not have many opportunities in school to decide autonomously what to do and in which way.
10.	In everyday situations at school I can be who I really am.
11.	The official teaching curriculum are limiting my creativity and flexibility about work in classroom.
12.	The school administration permanently insist on achieving the set educational goals.
13.	At collective meetings I feel completely free to express my ideas and opinions.
14.	When I get an assignment from my superiors at work, I usually have to do it exactly as I am told.
15.	Parents of students more often pressure me about what students should learn, which grade they deserve or how I should treat them.
16.	The school administration encourages employees' participation in important decision-making that affect the teachers' work.
17.	Tasks and requirements of school administration I perceive as pressure on personal work style.
18.	Members of the school administration often decide on behalf of the collective what should they do in school and in which way, without consultation with other employees.

¹⁸ Presented scale represents the final version of the instrument used in research after conduction of pilot research and logical analysis of instrument. After validation, using factor analysis, the items no. 3 and 12 are eliminated from instrument. The final version of the scale has 16 items.

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